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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,147	09/18/2000	Nathan F. Raciborski	193696-000500US	6650

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EXAMINER

PARTON, KEVIN S

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/664,147

**Applicant(s)**

RACIBORSKI ET AL.

**Examiner**

Kevin Parton

**Art Unit**

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20, and 22-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. The After Final amendment filed 09/07/2004 has been entered in the case. A new grounds of rejection is stated below.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6-8, 10, 14, 15, 17, 18, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kangsharju.
5. Regarding claim 1, Kangasharju et al. teach a system for reporting status information from a plurality of content exchanges to a remote system, the system comprising:
  - a. A server at the remote location including a plurality of content objects (abstract; page 5, column 2, paragraph 4).
  - b. A first content exchange comprising a first subset of content portions of the plurality of content objects, the first subset obtained from the server (abstract, lines 1-3; page 2, column 2, paragraph 3). Note that in the reference, cache servers are content exchanges.

- c. A second content exchange comprising a second subset of content portions the plurality of content objects (abstract, lines 1-3; page 2, column 2, paragraph 3).
- d. A first datalink that transports a first catalog of the first subset between the first content exchange and a server (page 5, column 2, paragraph 4; page 6, column 1, paragraph 1).
- e. A second datalink that transports a second catalog of the second subset between the second content exchange and a server (page 5, column 2, paragraph 4; page 6, column 1, paragraph 1).

Although the system disclosed by Kangasharju shows substantial features of the claimed invention, it fails to disclose specifically means wherein the content exchanges return catalog information to the same server from which the content object portions are obtained.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Kangasharju.

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju by sending the catalogs of the content exchanges back to the server that houses the original content. This benefits the system by allowing the remote server to automatically update the content exchanges as well as notify other connected caches about the contents stored on the updated content exchanges.

6. Regarding claim 2, Kangasharju teach all the limitations as applied to claim 1.

They further teach means wherein the first and second catalogs comprise a plurality of entries (page 6, column 1, paragraph 2). Note that content updates can be sent in batches.

7. Regarding claim 3, Kangasharju teach all the limitations as applied to claim 2.

They further teach means wherein at least one of the plurality of entries comprises a content object filename, a path, and a server name (page 6, column 1, paragraph 2).

Note that web page information is stored, this necessarily includes a server name, path, and filename for each object cached.

8. Regarding claim 4, Kangasharju teach all the limitations as applied to claim 1.

They further teach means wherein at least one of the first and second datalinks transport over the Internet (page 6, column 1, paragraph 2).

9. Regarding claim 6, Kangasharju teach all the limitations as applied to claim 1.

They further teach means wherein the first datalink transports status information relating to the first content exchange (abstract; page 2, column 1, paragraph 3).

10. Regarding claim 7, Kangasharju teach all the limitations as applied to claim 1.

They further teach means wherein at least one of the first and second content exchanges checks an operational status of the server (page 2, column 1, paragraph 1).

11. Regarding claim 8, Kangasharju teach a system for reporting information to remote locations in a content distribution system with means for:

- a. Determining, at a content exchange, a first catalog of a first plurality of content object portions obtained from a first server at a first remote

location (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

- b. Determining, and the content exchange, a second catalog of a second plurality of content object portions obtained from a second server at a second remote location (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).
- c. Transporting the first catalog to a remote location (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).
- d. Transporting the second catalog to a remote location (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).
- e. Detecting changes to one of the first and second catalogs (page 6, column 1, paragraph 2).
- f. Transporting the changes to a remote location (page 6, column 1, paragraph 2).

Although the system disclosed by Kangasharju shows substantial features of the claimed invention, it fails to disclose specifically means wherein the content exchanges return catalog information to the same server from which the content object portions are obtained.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Kangasharju.

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju by sending the catalogs of the

content exchanges back to the server that houses the original content. This benefits the system by allowing the remote server to automatically update the content exchanges as well as notify other connected caches about the contents stored on the updated content exchanges.

12. Regarding claim 10, Kangasharju teach all the limitations as applied to claim 8. They further teach means for reporting the first and second servers status information at a predetermined interval (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2). Note that the batch sending allows a cache to set an interval after which data will be sent.

13. Regarding claim 14, teach all the limitations as applied to claim 8. They further teach means wherein the transporting comprises transporting via the Internet (page 6, column 1, paragraph 2).

14. Regarding claim 15, Kangasharju teach a system for tracking information in a content distribution system with means for:

- a. Receiving, at a server, a first content catalog of first content object portions from a first remote computer, the first content object portions obtained by the first remote computer from a server (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).
- b. Receiving, at a server, a second content catalog of second content object portions from a second remote computer, the second content object portions obtained by the second remote computer from a server (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

- c. Updating a content database with information from the first and second content catalogs (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).
- d. Receiving a third content catalog from the first remote computer that is different from the first content catalog (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).
- e. Receiving a fourth content catalog from the second remote computer that is different from the second content catalog (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).
- f. Updating the content database with information from the third and fourth content catalogs (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2). Note that the nature of updating requires that when a new catalog comes in, it replaces the information that has changed from the previous catalog.

Although the system disclosed by Kangasharju shows substantial features of the claimed invention, it fails to disclose specifically means wherein the remote computers (caches) return catalog information to the same server from which the content object portions are obtained.

Nonetheless, these features are well known in the art and it would have been an obvious modification of the system disclosed by Kangasharju.

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju by sending the catalogs of the



caches back to the server that houses the original content. This benefits the system by allowing the remote server to automatically update the caches as well as notify other connected caches about the contents stored on the updated caches.

15. Regarding claim 17, Kangasharju teach all the limitations as applied to claim 15. They further teach means for receiving status information related to one of the first and second remote computers (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

16. Regarding claim 18, Kangasharju teach all the limitations as applied to claim 15. They further teach means for providing status information to the first and second computers (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2).

17. Regarding claim 22, Kangasharju teach all the limitations as applied to claim 1. They further teach means wherein accessing a content object includes accessing a first content object portion from one of the first subset of the first plurality of content object portions and the second subset of the second plurality of content object portions, and a second content object portion from one of the first plurality of content object portions and the second plurality of content object portions (abstract, lines 1-3; page 2, column 2, paragraph 3; page 5, column 2, paragraph 4; page 6, column 1, paragraph 1). Note that given the wording of this claim, all content object portions may reside in the same subset.

18. Regarding claim 23, Kangasharju teaches all the limitations as applied to claim 1. They further teach means wherein the first subset of the plurality of content object portions includes a first portion of a first content object and the first subset does not

include a second portion of the first content object (page 5, column 2, paragraph 4; page 6, column 1, paragraph 1).

19. Regarding claim 24, Kangasharju teaches all the limitations as applied to claim 1. They further teach means wherein the content object is one of a content file and a content stream (page 5, column 2, paragraph 4; page 6, column 1, paragraph 1).

20. Claims 5, 9, 11, 13, 16, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kangasharju et al. (1999) in view of Chase et al. (EP 0 877 326 A2).

21. Regarding claim 5, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 1) shows substantial features of the claimed invention, it fails to disclose means wherein the first subset of the first plurality of content object portions is purged from the first content exchange when the server becomes unavailable.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data wherein the first subset of the first plurality of content object portions is purged from the first content exchange when the server becomes unavailable (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by employing the purging of cache information when the origin server is no longer available. This benefits the system by causing users

to realize the origin server is no longer in operation and that they are no longer able to view the information that was cached. Note that this would be a consequence of sending updates to the origin server of what was being saved.

22. Regarding claim 9, Kangasharju et al. (1999) teach all the limitations as applied to claim 8. They further teach means for determining the first server is unavailable (page 5, column 2, paragraph 4; page 6, column 1, paragraph 2). Note that in the reference, the client would know the status of the server upon request.

Although the system disclosed by Kangasharju et al. (1999) shows substantial features of the claimed invention, it fails to disclose means for purging the first plurality of content object portions in response to the determining the first server is unavailable.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data with means for purging the first plurality of content object portions in response to the determining the first server is unavailable (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by employing the purging of cache information when the origin server is no longer available. This benefits the system by causing users to realize the origin server is no longer in operation and that they are no longer able to

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view the information that was cached. Note that this would be a consequence of sending updates to the origin server of what was being saved.

23. Regarding claim 11, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 8) shows substantial features of the claimed invention, it fails to disclose means for reporting to the first and second servers an impending unavailability of a content exchange.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data with means for reporting to the first and second servers an impending unavailability of a content exchange (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by employing the notification of a soon to be unavailable machine. This benefits the system by allowing the server to avoid holding information on caches that may be corrupted or emptied when they became unavailable.

24. Regarding claim 13, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 8) shows substantial features of the claimed invention, it fails to

disclose means for purging information from a content location database when a content exchange becomes unavailable.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data with means for purging information from a content location database when a content exchange becomes unavailable (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by employing the purging of information relating to an unavailable host or intermediate cache. This benefits the system by allowing the server to avoid holding information on caches that may have been corrupted or emptied when they became unavailable.

25. Regarding claim 16, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 15) shows substantial features of the claimed invention, it fails to disclose means for updating the content database when one of the first and second remote computers is unavailable.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data with means for updating the content database when one of the first and second remote computers is unavailable (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by employing the updating of information relating to an unavailable host or intermediate cache. This benefits the system by allowing the server to avoid holding information on caches that may have been corrupted or emptied when they became unavailable.

26. Regarding claim 19, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 15) shows substantial features of the claimed invention, it fails to disclose means for notifying the first and second computers of impending unavailability.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data with means for notifying the first and second computers of impending unavailability (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by informing intermediate caches of an unavailable

server. This benefits the system by allowing the computers to no longer hold cached information from an unavailable server that may be in update or not coming back online.

27. Regarding claim 20, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 15) shows substantial features of the claimed invention, it fails to disclose means for receiving notification from one of the first and second computers of impending unavailability.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Chase et al. (EP 0 877 326 A2).

In an analogous art, Chase et al. (EP 0 877 326 A2) disclose a system for distributed caching of web accessible data with means for receiving notification from one of the first and second computers of impending unavailability (figure 4, element 400).

Given the teaching of Chase et al. (EP 0 877 326 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by informing the server of unavailable intermediate caches. This benefits the system by allowing the server to avoid holding information on caches that may have been corrupted or emptied when they became unavailable.

28. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kangasharju et al. (1999) (as applied to claim 8) in view of Tsirigotis et al. (EP 0 847 020 A2).

29. Regarding claim 12, although the system disclosed by Kangasharju et al. (1999) (as applied to claim 8) shows substantial features of the claimed invention, it fails to disclose means for:

- a. Receiving a preload command.
- b. Preloading at least one content object portion from a remote server in response to receiving the preload command.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Kangasharju et al. (1999), as evidenced by Tsirigotis et al. (EP 0 847 020 A2).

In an analogous art, Tsirigotis et al. (EP 0 847 020 A2) discloses a system for distributed caching with means for:

- a. Receiving a preload command (column 2, lines 30-32).
- b. Preloading at least one content object portion from a remote server in response to receiving the preload command (column 2, lines 21-36).

Given the teaching of Tsirigotis et al. (EP 0 847 020 A2), a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Kangasharju et al. (1999) by employing the preloading of content. This benefits the system by allowing users to have faster access to information that they are most likely to request.



**Conclusion**

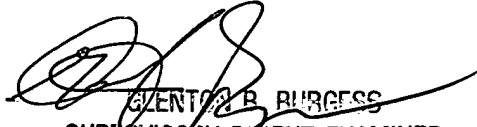
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parton whose telephone number is (571)272-3958. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Parton  
Examiner  
Art Unit 2153

ksp

  
GLENTON B. BURGESS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

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